# WIRELESS ROUTER 54Mbps

# USER MANUAL

- Easy to install and configure
- **APR 54** (802.11b/g)

SMART LAN

# Content

54M

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# Section one Introductio

Thank you for purchasing 54M Wireless Broadband Router. This user guide will assist you with the installation procedure.

## 1.1 About the 54M Wireless Router

54M Wireless Router is a hybrid design product which combines Ethernet technology and wireless access into a single stand-alone unit. The device allows you take advantages of both mobility and fast connection. All PCs whenever on wireless LAN or Ethernet LAN can share files, printers and other network resource. Moreover, all users can share single account of Internet access by having this device connect to a DSL/Cable modem.

### 1. Ethernet / Fast Ethernet

Ethernet is the most widely-used network access method, especially in a Local Area.Network (LAN) and is defined by the IEEE as the 802.3 standard. Normally, Ethernet is a shared media LAN. All stations on the segment share the total bandwidth, which could be 10 Mbps (Ethernet), 100 Mbps (Fast Ethernet). With a switched Ethernet, each sender and receiver has the full bandwidth.*Fast Ethernet* is defined by the IEEE 802.3u standard, a high-speed version of Ethernet with 100 Mbps transmission rate.

### 2. Wireless LAN

Wireless Local Area Network systems (WLANs) transmit and receive data through the air by using radio frequency (RF). This offers some advantages like mobility, ease of installation, and scalability over traditional wired systems.

***Mobility***:

WLANs combine data connectivity with user mobility. This provides users with access to network anywhere in their organization. For example, users can roam from a conference room to their office without being disconnected from the LAN. This is impossible with wired networks.

## 1.2 Package contents

After carefully unpacking the shipping carton, check the contents listed below.

- 54M Wireless Broadband Router Router
- A power adapter
- 54M Wireless Broadband Router User Manual

If any of the listed contents are damaged or missing, please contact the retailer from whom you purchased the 54M Wireless Router for assistance.

## 1.3 Features

The 54M Wireless Router has the following features that make it excellent for network connections.

- Complies with IEEE802.11g, IEEE802.11b, IEEE802.3, IEEE802.3u standards
- 1 10/100M Auto-Negotiation WAN RJ45 port, 4 10/100M Auto-Negotiation LAN RJ45 ports
- Supports Auto MDI/MDIX
- Supports Wireless Roaming, can move among different AP and no break

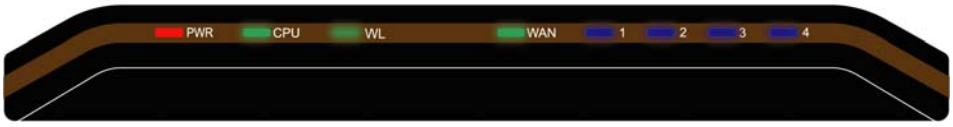
- Supports 54/48/36/24/18/12/9/6/11/5.5/3/2/1Mbps wireless LAN data transfer rates
- Provides 64/128 bit WEP encryption security
- Supports wireless mode: AP and Bridge
- Provides WPA and WPA2 authentication and TKIP/AES encryption security
- Provides wireless LAN ACL (Access Control List) filtering
- Built-in NAT and DHCP server supporting static IP address distributing
- Supports Virtual Server, Special Application, and DMZ host
- Built-in firewall supporting IP address filtering, Domain Name filtering, and MAC address filtering
- Supports TCP/IP, PPPoE, DHCP, ICMP, NAT
- Supports UPnP, Dynamic DNS
- Supports Flow Statistics
- Supports ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter
- Supports firmware upgrade
- Supports Remote and Web management

# Section Two Hardware Installation

## 2.1 Panel Layout

### 2.1.1 The Front Panel

The front panel of the 54M Wireless Router consists of several LED indicators, which is designed to indicate connections. Viewed from left to right. The table describes the LEDs on the front panel of the router.

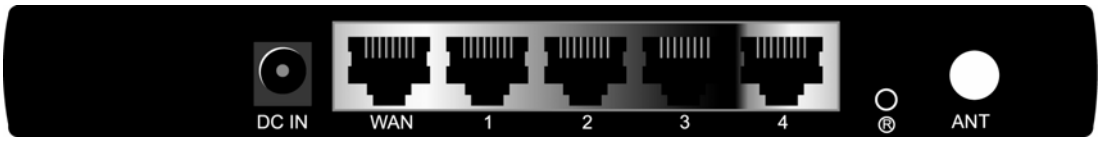



| Name | Action | Description |
|---|---|---|
| Power | OFF | No Power |
| | ON | Power on |
| CPU | ON | The router is initialising |
| | Flashing | The router is working properly |

| | | |
|---|---|---|
| | OFF | The router has a hardware error |
| WL | OFF | The Wireless Radio function is disabled |
| | Flashing | The Wireless Radio function is enabled |
| 1/2/3/4 | OFF | There is no device linked to the corresponding port |
| | ON | There is a device linked to the corresponding port but no activity |
| | Flashing | There is an active device linked to the corresponding port |

### 2.1.2 The Rear Panel

The rear panel contains the following features. (Viewed from left to right:)




1. Wireless antenna
2. WAN RJ45 port for connecting the router to a cable, DSL modem or Ethernet
3. Four LAN 10/100Mbps RJ45 ports for connecting the router to the local PCs
4. AC power socket: only use the power adapter supplied with the 54M WIRELESS ROUTER 54Mbps Wireless Router, use of a different adapter may result in product damage.
5. Factory Default Reset button

**There is a way to reset the router's factory defaults**

1.Use the Factory Default Reset button: First, turn on the router's power. Second, press and hold the default reset button, until the system LED lights up(about 5 seconds). Last, release the reset button and wait for the router to reboot.

Notice: Ensure the router is powered on before it restarts completely.

## 2.2 System Requirements

- Broadband Internet Access Service (DSL/Cable/Ethernet)
- One DSL/Cable modem that has an RJ45 connector (you do not need it if you connect the router to Ethernet)
- Each PC on the LAN needs a working Ethernet Adapter and an Ethernet cable with RJ45 connectors
- TCP/IP protocol must be installed on each PC
- Web browser, such as Microsoft Internet Explorer 5.0 or later, Netscape Navigator 6.0 or later

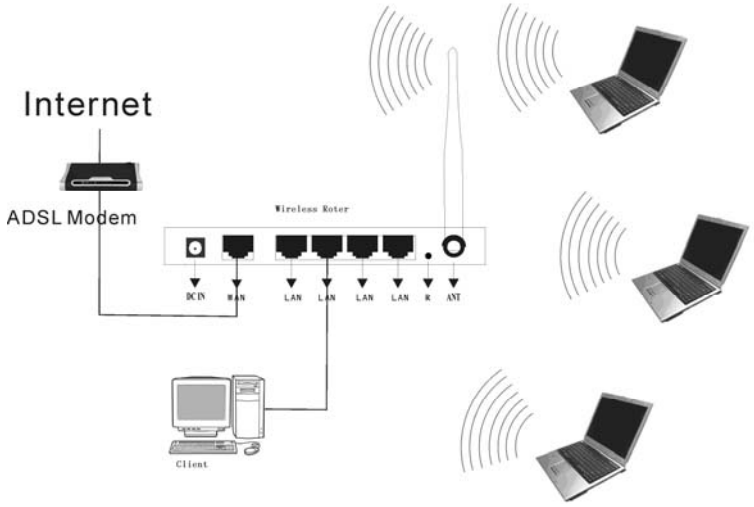
## 2.3 Installation Environment Requirements

- Not in direct sunlight or near a heater or heating vent
- Not cluttered or crowded. There should be at least 2 inches (5 cm) of clear space on all sides of the router
- Well ventilated (especially if it is in a closet)
- Operating temperature: 0□~40□
- Operating Humidity: 5%~90%RH, Non-condensing

## 2.4 Connecting the Router

Before you install the router, you should connect your PC to the Internet through your broadband service successfully. If there is any problem, please contact your ISP. After that, please install the router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

- Power off your PC(s), Cable/DSL modem, and the router.
- Locate an optimum location for the router. The best place is usually near the center of the area in which your PC(s) will wirelessly connect. The place must accord with the Installation Environment Requirements.
- Adjust the direction of the antenna. Normally, upright is a good direction.
- Connect the PC(s) and each Switch/Hub on your LAN to the LAN Ports on the router.
- Connect the DSL/Cable Modem to the WAN port on the router.
- Connect the AC power adapter to the AC power socket on the router, and the other end into an electrical outlet. The router will start to work automatically.
- Power on your PC(s) and Cable/DSL modem.




# Section Three: Quick Installation Guide

After connecting the 54M Wireless Router into your network, you should configure it. This chapter describes how to configure the basic functions of your 54M Wireless Router. These procedures only take you a few minutes. You can access the Internet via the router immediately after successfully configured.

## 3.1 TCP/IP configuration

The default IP address of the 54Mbps Wireless Router is 192.168.1.254, and the default Subnet Mask is 255.255.255.0. These values can be seen from the LAN. They can be changed as you desire, as an example we use the default values for description in this guide.

Connect the local PCs to the LAN ports on the router. There are then two means to configure the IP address for your PCs.

**Configure the IP address manually**

1. Set up the TCP/IP Protocol for your PC(s). If you need instructions as to how to do this.

2.Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is from 2 to 254), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.254(The router's default IP address)

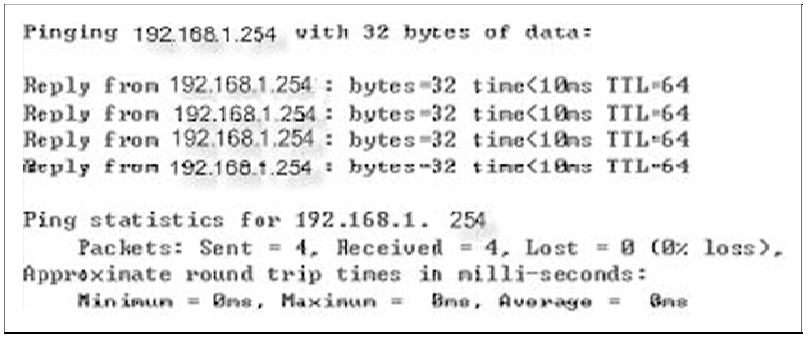
**Obtain an IP address automatically**

1.Set up the TCP/IP Protocol in "**Obtain an IP address automatically**" mode on your PC(s). If you need instructions as to how to do this,

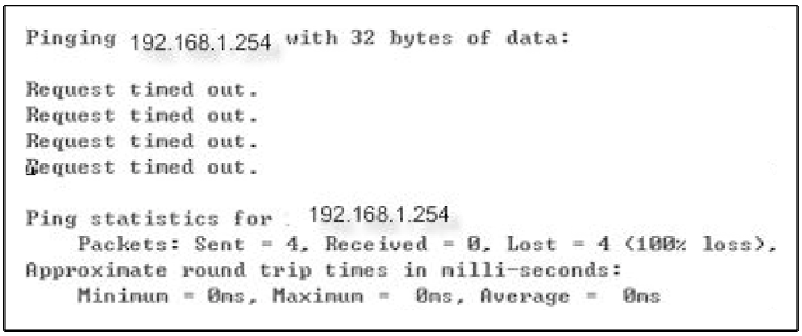
2.Power off the router and PC(s). Then turn on the router, and restart the PC(s). The built-in DHCP server will assign IP addresses for the PC(s).

Now, you can run the Ping command in the **command prompt** to verify

the network connection between your PC(s) and the router.
Open a command prompt, and type ping **192.168.1.254**, then press **Enter.**


Pinging 192.168.1.254 with 32 bytes of data:
Reply from 192.168.1.254 : bytes=32 time<10ms TTL=64
Reply from 192.168.1.254 : bytes=32 time<10ms TTL=64
Reply from 192.168.1.254 : bytes=32 time<10ms TTL=64
Reply from 192.168.1.254 : bytes=32 time<10ms TTL=64
Ping statistics for 192.168.1. 254
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approxinate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

If the result displayed is similar to that shown in the top of figure, the connection between your PC and the router has been established.


Pinging 192.168.1.254 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.254
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

If the result displayed is similar to that shown in the top of figure, it means that your PC has not connected to the router. Please check it following these steps:

**1. Is the connection between your PC and the router correct?**

**Notice**: The 1/2/3/4 LEDs of LAN port on the router and LEDs on your PC's adapter should be lit.

**2. Is the TCP/IP configuration for your PC correct?**

**Notice**: If the router's IP address is 192.168.1.254, your PC's IP address must be within the range of 192.168.1.2 ~ 192.168.1.253, the gateway must be 192.168.1.254

## 3.2 Quick S etup wizard

With a Web-based (Internet Explorer or Netscape® Navigator) utility, the 54Mbps Wireless Router is easy to configure and manage. The Web-based utility can be used on any Windows, Macintosh or UNIX OS with a web browser.
Connect to the router by typing *http://192.168.1.254* in the address field of web browser.

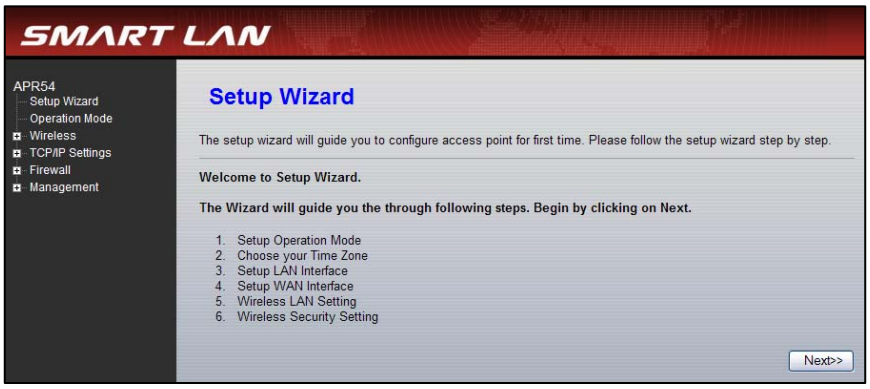
After a moment, a login window will appear similar to that shown in Figure. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.

## NOTE:

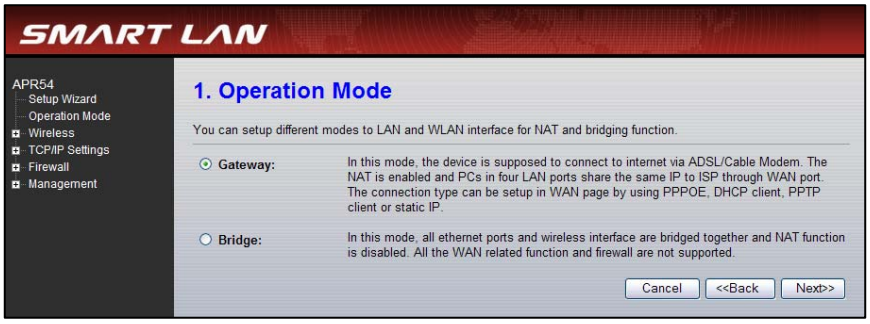
If the above screen does not prompt, it means that your web-browser has been set to a proxy. Go to Tools menu>Internet Options>Connections>LAN Settings, in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

If the User Name and Password are correct, you can configure the router using the web browser. Please click the Setup Wizard link on the left of the main menu and the Setup Wizard screen will appear.

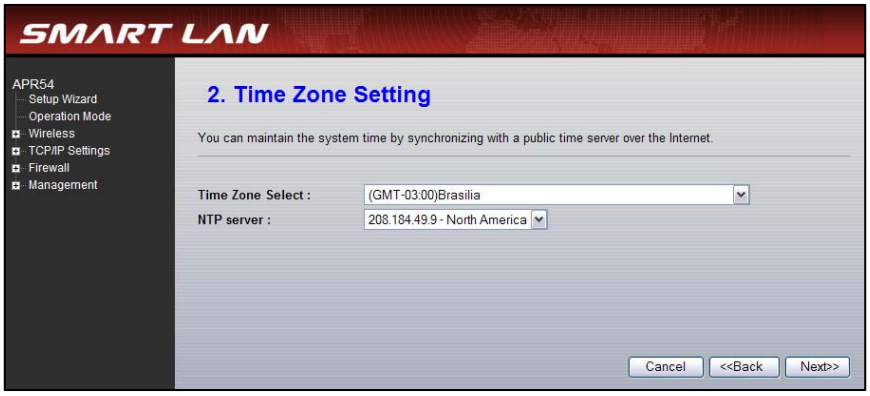
Click **SetupWizard**, the **SetupWizard** will appear.


SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Setup Wizard
The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.
Welcome to Setup Wizard.
The Wizard will guide you the through following steps. Begin by clicking on Next.
1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting
Next>>

The router supports three modes: gateway, bridge, wireless ISP. You can setup different modes to LAN and WLAN interface for NAT and bridging function.


SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
1. Operation Mode
You can setup different modes to LAN and WLAN interface for NAT and bridging function.
Gateway:
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Bridge:
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Cancel
<<Back
Next>>

Click **next**, **Time Zone Setting** will appear. You can select the time zone what you need.

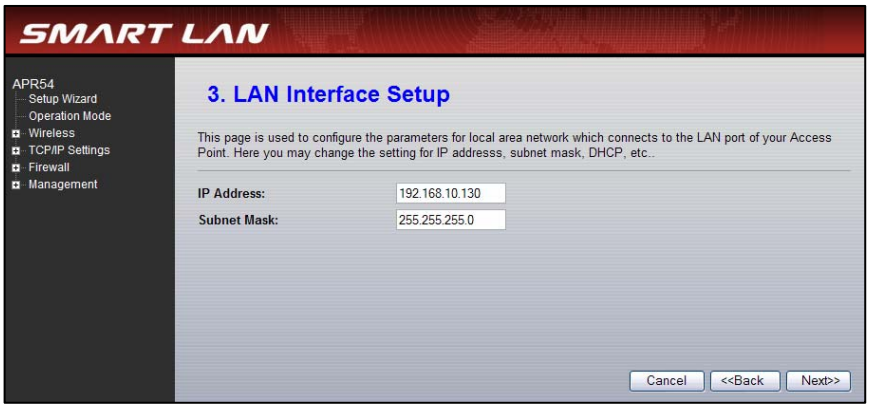



Click **next**, **LAN Interface setup** will appear. In this page, you can set IP address, Subnet Mask.

**IP Address -** Enter the IP address of your router in dotted-decimal notation (factory default: 192.168.1.254).

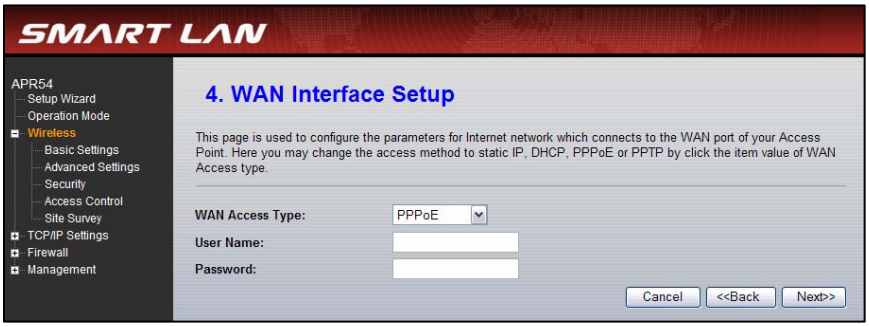
**Subnet Mask -** An address code that determines the size of the network. Normally use 255.255.255.0 as the subnet mask.

**Notice :** The same to all PCs' Subnet Mask with router in you LAN.



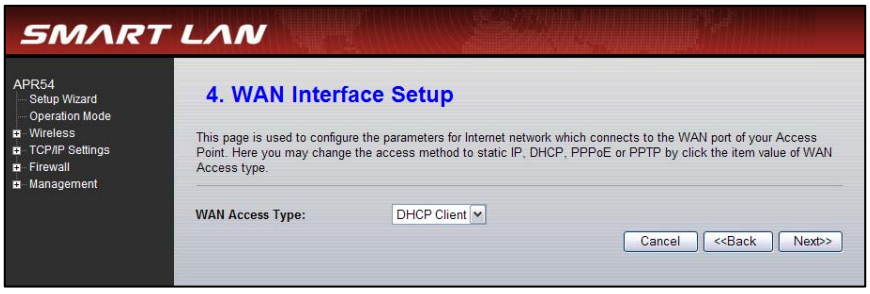

Click next, WAN Interface will appear. In this page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point.

**WAN Access Type:** Here you can select the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.



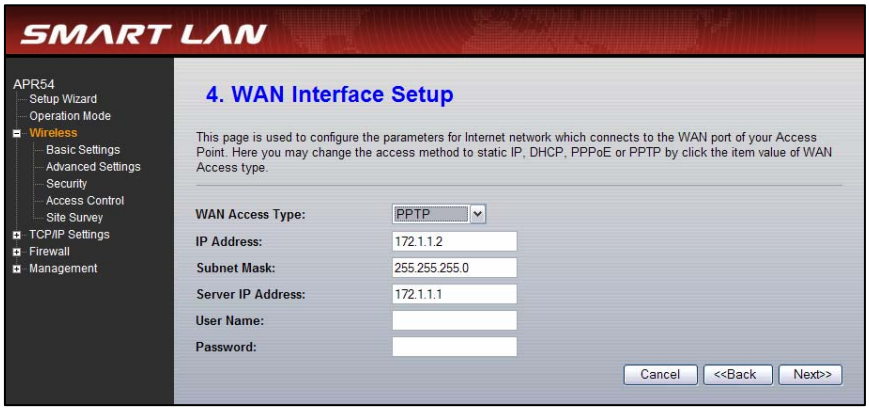

**User Name** and **Password -** Enter the **User Name** and **Password** provided by your ISP.

**Services name**: Default is blank.


SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
4. WAN Interface Setup
This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>

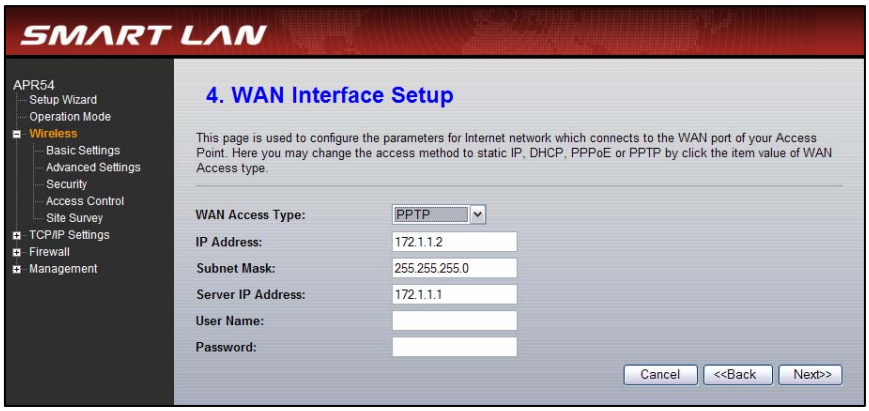
If you choose " **DHCP Client**", the router will automatically receive the IP parameters from your ISP without needing to enter any parameters.

If you Choose "**PPTP**", the Static IP settings page will appear, shown in the figure.




You can get IP Address Subnet Mask, server IP Address, User Name and Password from your ISP

If you Choose "**Static IP**", the Static IP settings page will appear, shown in figure.




**Note:** The IP parameters should have been provided by your ISP.

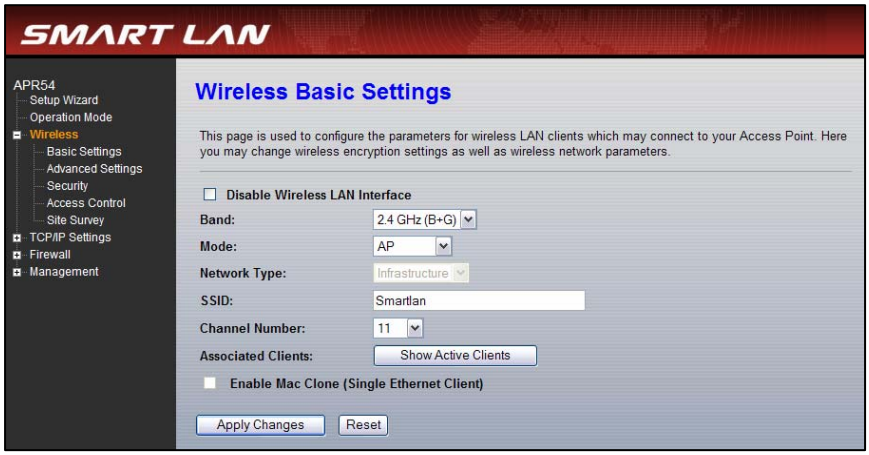
**IP Address -** This is the WAN IP address as seen by external users on the Internet (including your ISP). Enter the IP address into the field.

**Subnet Mask -** The Subnet Mask is used for the WAN IP address, it is usually 255.255.255.0

**Default Gateway -** Enter the gateway into the box if required.

**DNS -** Enter the DNS Server IP address into the boxes if required.

Click next, wireless basic setting will appear.




□This page is used to configure these parameters□

**Band -** Indicates the current mode (2.4GHz(G)-54Mbps (802.11g), 2.4GHz(B)11Mbps (802.11b)). 2.4GHz(G+B), which allows both 802.11g and 802.11b wireless stations to connect to the router.

**Mode-**Default is AP,you can select Client,WDS,AP+WDS

**Network Type**-Default is Infrastructure,when mode is client,Network Type may be AD-HOC

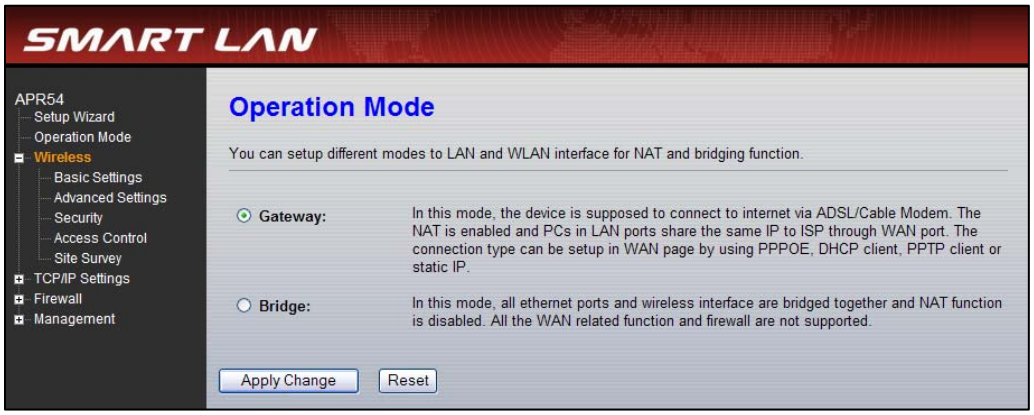
**SSID -** Enter a value of up to 32 characters. The same name (SSID) must be ssigned to all wireless devices in your network. The default SSID is Kingnet, but it is recommended strongly that you change your networks name (SSID) to a different value. This value is case-sensitive.

**Channel –** From 1 to 13.This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.

Click next, Wirelss Security Setup will appear.this page allow you setuo the security. You can select NoneWEP WPA(TKIP),WPA2(AES),WPA2 Mixed.

Click Apply Changes,you will find the page show set secceful.
**Notice:** If you change the parameters of wireless, The router will reboot automatically.

## 3.3 Operation mode


SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
Basic Settings
Advanced Settings
Security
Access Control
Site Survey
TCP/IP Settings
Firewall
Management
Operation Mode
You can setup different modes to LAN and WLAN interface for NAT and bridging function.
Gateway:
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Bridge:
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Apply Change
Reset

**Gateway** (default) In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
**Bridge:** In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.

# Section four Configuration Guide

## 4.1 Login

After you login successful, Browser will show administrator WEB. on the left is contents. it contains: Wireless setting, WAN Settings, LAN Settings, Network Security, System Services, Management, Status Show, Exit Setting.

SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
TCP/IP Settings
Firewall
Management
Setup Wizard
The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.
Welcome to Setup Wizard.
The Wizard will guide you the through following steps. Begin by clicking on Next.
1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting
Next>>

## 4.2 Wireless Setting

it contains Wireless Basic settings, Advance Settings, security, Access Control, WDS Settings, Site Survey.

### 4.2.1 Wireless Basic settings

**Band:** Indicates the current mode (2.4GHz(G)-54Mbps (802.11g), 2.4GHz(B)11Mbps (802.11b)). 2.4GHz(G+B), which allows both 802.11g and 802.11b wireless stations to connect to the router.

**Mode:** Default is AP,you can select Client,WDS,AP+WDS

Network Type: Default is Infrastructure,when mode is client,Network Type should be setting AD-HOC

**SSID:** Enter a value of up to 32 characters. The same name (SSID) must bessigned to all wireless devices in your network. The default SSID is Kingnet, but

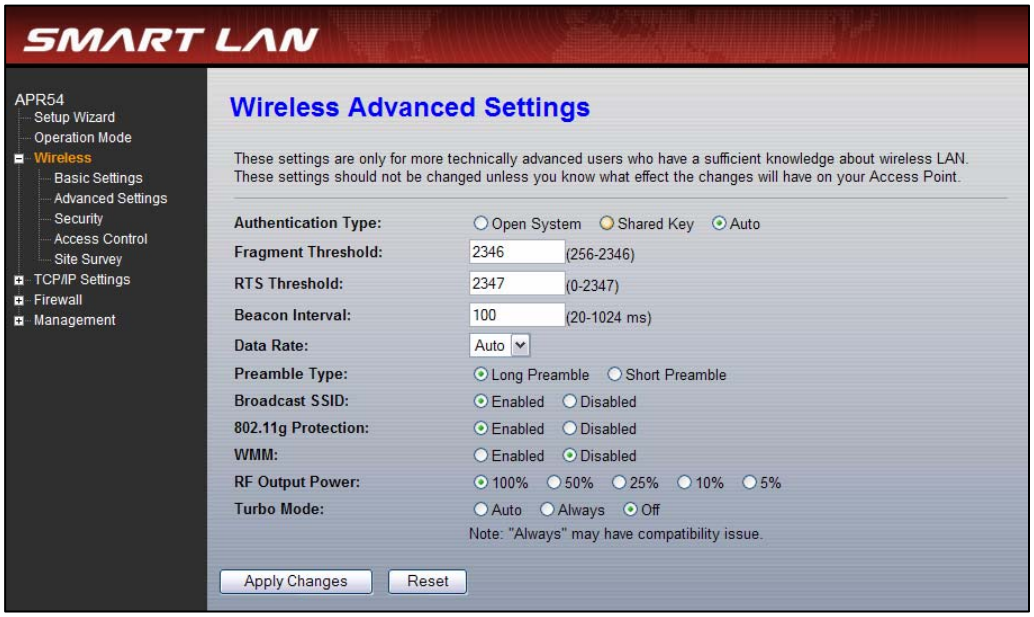
It is recommended strongly that you change your networks name (SSID) to a different value. This value is case-sensitive.

**Channel:** From 1 to 13.This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.

**Associated Client:** click show active client, you can check the list of wireless client.

**Enable MAC Clone:** it only adapt to wireless client.

### 4.2.2 Wireless Advanced Settings


SMART LAN
APR54
Setup Wizard
Operation Mode
Wireless
Basic Settings
Advanced Settings
Security
Access Control
Site Survey
TCP/IP Settings
Firewall
Management
Wireless Advanced Settings
These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN.
These settings should not be changed unless you know what effect the changes will have on your Access Point.
Authentication Type: Open System Shared Key Auto
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2347 (0-2347)
Beacon Interval: 100 (20-1024 ms)
Data Rate: Auto
Preamble Type: Long Preamble Short Preamble
Broadcast SSID: Enabled Disabled
802.11g Protection: Enabled Disabled
WMM: Enabled Disabled
RF Output Power: 100% 50% 25% 10% 5%
Turbo Mode: Auto Always Off
Note: "Always" may have compatibility issue.
Apply Changes
Reset

These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.

### 4.2.3 Wireless security setup

This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

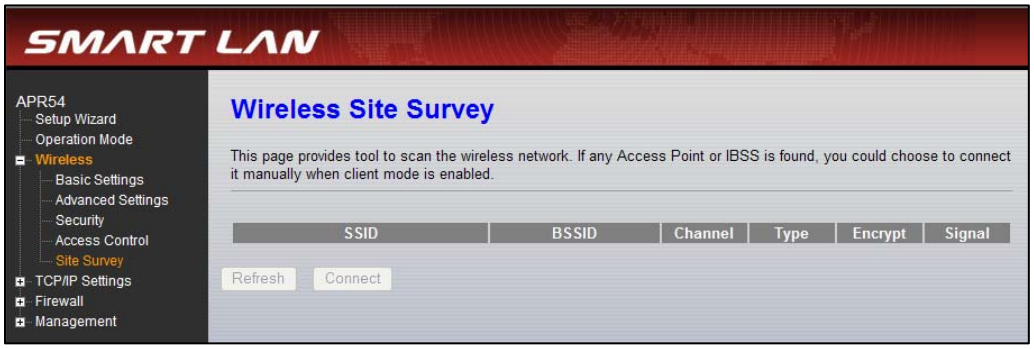
**Encryption:** you can select None,WEP,WPA,WPA2, WPA2 Mixed
**WEP:**Wired Equivalent Protoco.
**WPA:**(WI-FI Protected Access Wi-Fi) WPA is an intermediate solution for the security issues. It uses Temporal Key Integrity Protocol (TKIP) to replace WEP.
**TKIP:** TKIP is a compromise on strong security and possibility to use existing hardware. It still uses RC4 for the encryption like WEP, but with per-packet RC4 keys. In addition, it implements replay protection, keyed packet authentication mechanism (Michael MIC).
**WPA Authentication Mode:** Keys can be managed using two different mechanisms. WPA can either use an external authentication server (e.g., RADIUS) and EAP just like IEEE 802.1X is using or pre-shared keys without need for additional servers. Wi-Fi calls these "WPA-Enterprise" and "WPA-Personal", respectively. Both mechanisms will generate a master session key for the Authenticator (AP) and Supplicant (client station).
**802.1X:** The original security mechanism of IEEE 802.11 standard was not designed to be strong and has proven to be insufficient for most networks that require some kind of security. Task group I (Security) of IEEE 802.11 working group has worked to address the flaws of the base standard and in practice completed its work in May 2004. The IEEE 802.11i amendment to the IEEE 802.11 standard was approved in June 2004 and published in July 2004.
**WPA Cipher suite/WPA2 Cipher suite**:The encryption piece of WPA and WPA2 mandates the use of TKIP or, because it's considered to be more secure than TKIP, preferably AES encryption.
**Pre-Shared Key Format:** You can select PASSPHRASE or HEX(64 CHARACTERS).
**Pre-Shared Key:** You can input 128 characters key.
**Authentication RADIUS Server:**input Port and IP Address and Password.

### 4.2.4 Wireless Access Control

If you choose 'Allowed Listed', only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Access Point. When 'Deny Listed' is selected, these wireless clients on the list will not be able to connect the Access Point.

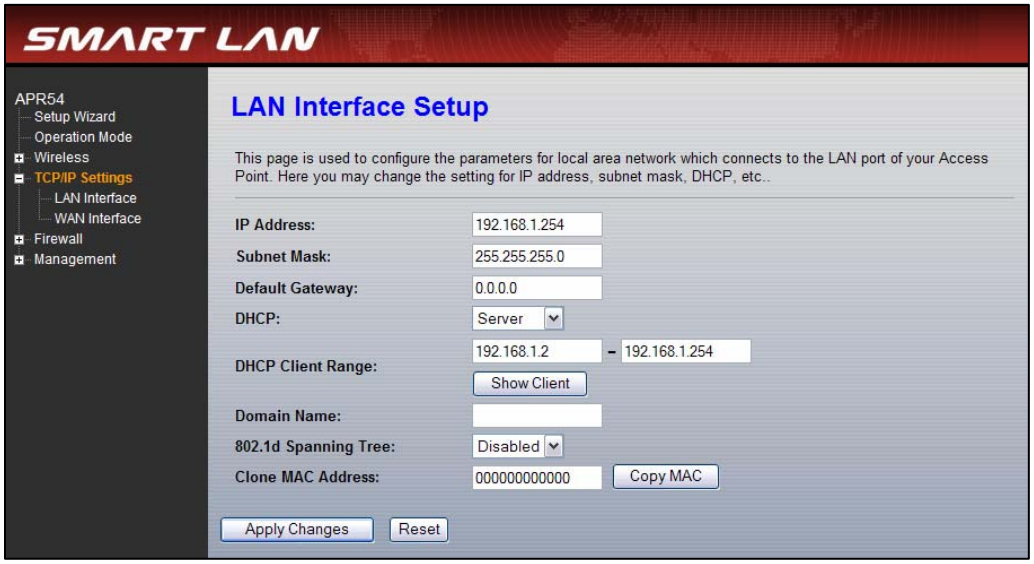
### 4.2.5 Wireless Site Survey

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.




## 4.3 TCP/IP Setting

### 4.3.1 LAN Setting Lan Interface setup




This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP addresss, subnet mask, DHCP, etc..

**MAC Address** - the physical address of the router, as seen from the LAN. The value can't be changed.

**IP Address -** Enter the IP address of your router in dotted-decimal notation (factory default: 192.168.1.254).

**Subnet Mask -** An address code that determines the size of the network. Normally use

255.255.255.0 as the subnet mask.

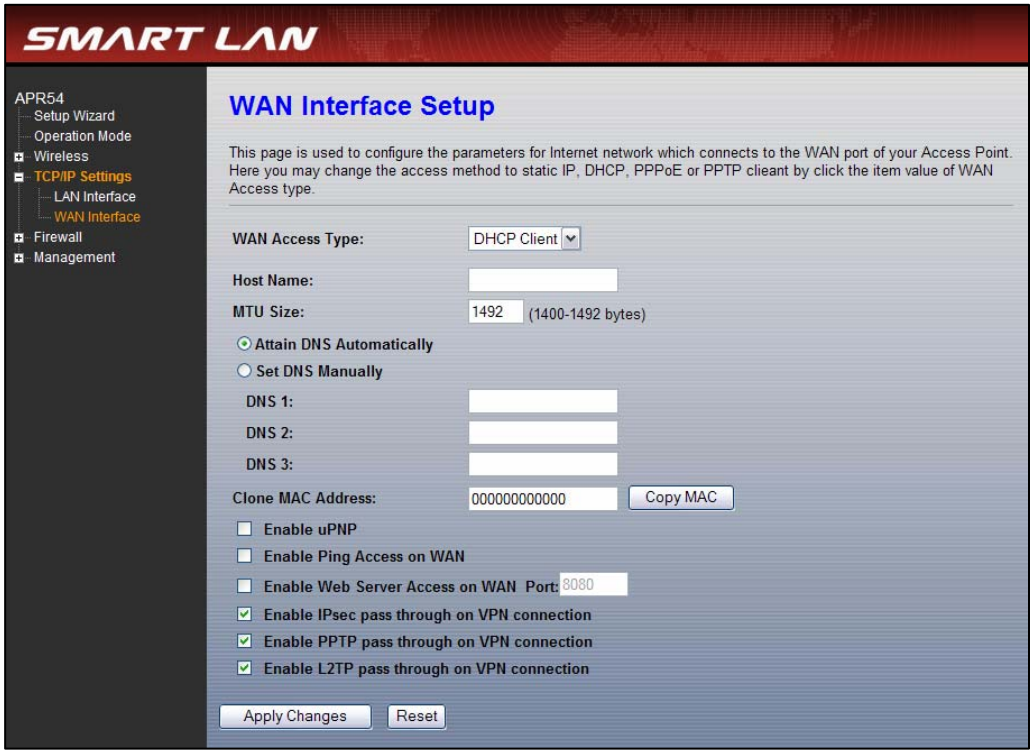
**DHCP:** You can select None,Client,Serve. The router is set up by default as a DHCP (Dynamic Host Configuration Protocol) server, which provides the TCP/IP configuration for all the PCs that are connected to the router on the LAN.

**DHCP Client Range:** This field specifies the first of the addresses in the IP address pool.

**802.1d Spanning Tree:** The IEEE 802.1D Spanning Tree Algorithm (STA) ,loop prevention and redundant link configuration. You can select disable or enable.if your mode was set WDS or AP+WDS, this item should be set “enable”

**Clone MAC Address:**you can enter a MAC,Then click clone.

### 4.3.2WAN Interface




This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.

WAN Access Type,User name, password, Service:
you can refer to 3.2 Quick Installation Guide.

**Connection Type:**you can select continous o, connect on demand, manual.

**Idle time:** when connection type is connect on demand,you can set idle time.

**MTU Size:** The normal MTU (Maximum Transmission Unit) value for most Ethernet

networks is 1492 Bytes. For some ISPs you need to reduce the MTU. But this is rarely required, and should not be done unless you are sure it is necessary for your ISP connection.

**DNS:**You can select Attain DNS Automatically or Set DNS Manually

**Clone MAC Address**: if you wang clone, input MAC Address

**Enable UpnP:** The Universal Plug and Play (UPnP) feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically discovered by the UPnP service application on the LAN.

**Enable L2TP pass through on VPN connection:**

**Enable IPsec pass through on VPN connection:**

**Enable PPTP pass through on VPN connection:**

## 4.4 Firewal

### 4.4.1 Port Filtering

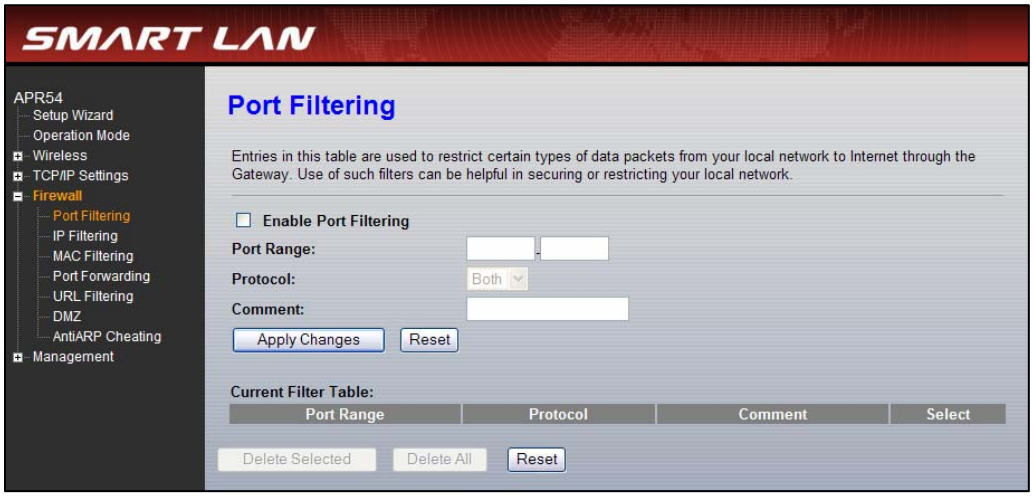
Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

**Enable Port filtering:** select it, you can modify port filter.

**Port range:** input the filter port, for eaample 20-220

**Protocol:** you can select both,TCP,UDP

**Cuurrent filter table:** The list of port filter.




### 4.4.2 IP Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your

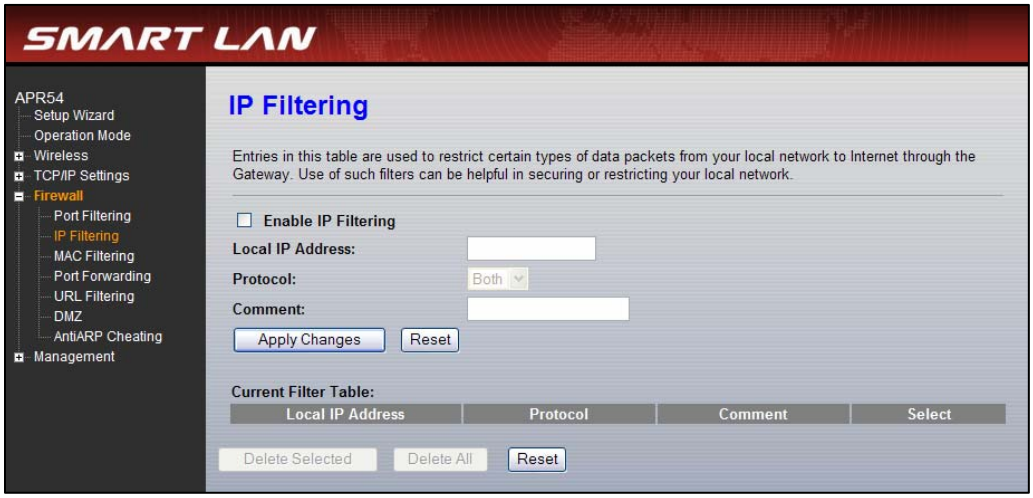
local network.

**Enable IP Filtering:** select it, you can modify IP filter.

**Local IPAddress:**input the IP Address,for example:192.168.1.23.

**Protocol:** you can select both,TCP,UDP

**Cuurrent Filter table:** The list of IP filter.




### 4.4.3 MAC Filtering

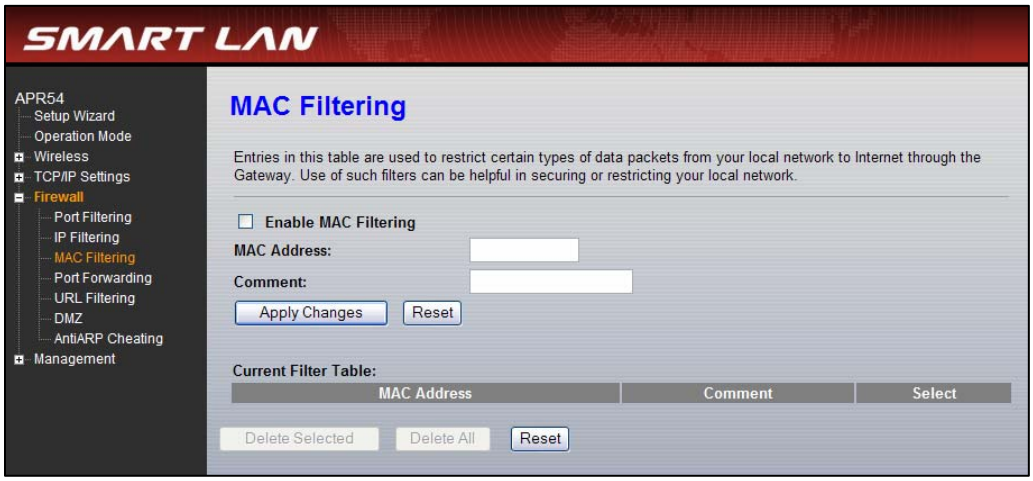
Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network

**Enable MAC Filtering:** select it,you can modify MAC filter.

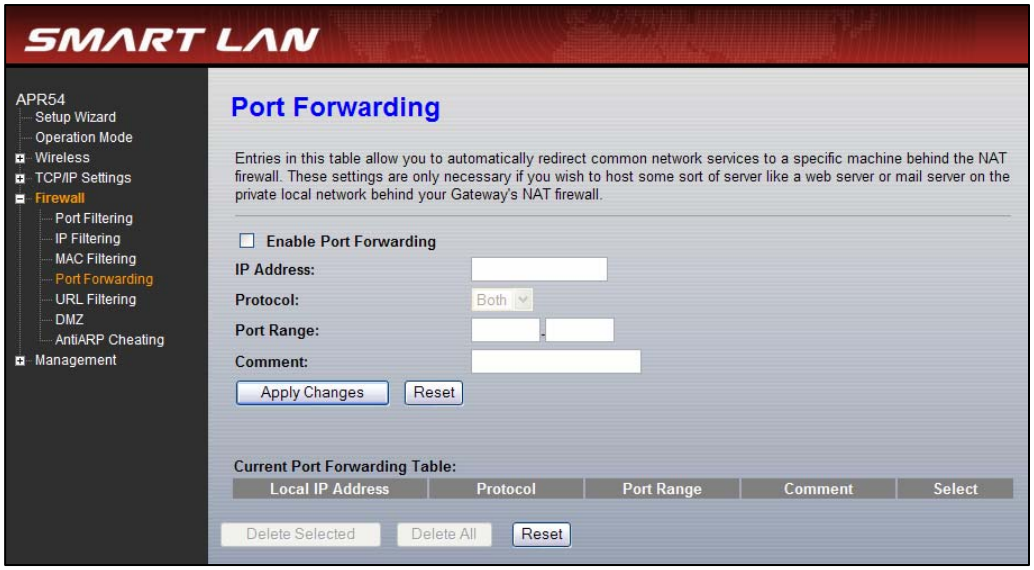
**MACAddress:**type the MACAddress,for

example:00:e0:4e:3f:2d:c5.

**Cuurrent Filter table:** The list of MAC filter.



### 4.4.4 Port Forwarding




Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

**Enable MAC Address:**select it,you can modify MAC Address Filtering..

**IP Address:** The IP Address of the PC running the service application

**Protocol** - The protocol used for this application, either **TCP**, **UDP**, or **both** (all protocols supported by the router).

**Port Range-** The numbers of External Ports. You can type a service port or a range of service ports (the format is XXX – YYY, XXX is Start port, YYY is End port).

Current Port Forward Table: port forward services already list.

### 4.4.5 URL Filtering

URL filter is used to deny LAN users from accessing the internet. Block those URLs which contain keywords listed below.

**Enable URL :** select it, you can edit URL, For example:xxx.com

Click **apply changes**.

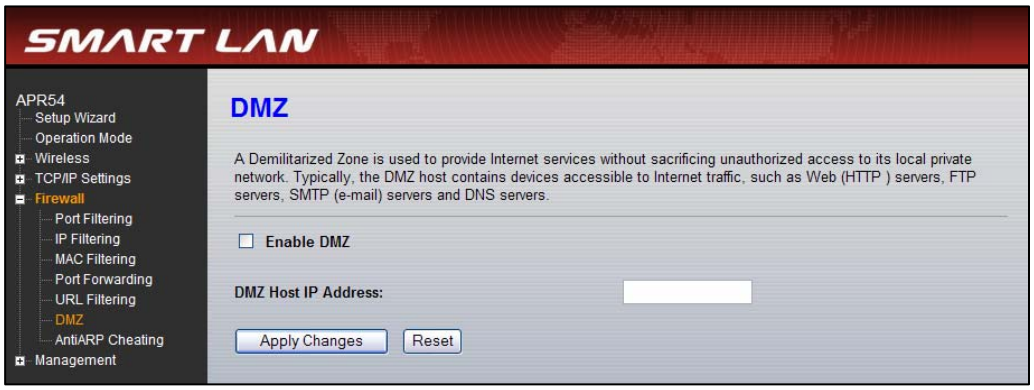
### 4.4.6 DMZ

The DMZ host feature allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing. DMZ host forwards all the ports at the same time. Any PC whose port is being forwarded must have its DHCP client function disabled and should have a new static IP Address assigned to it because its IP Address may change when using the DHCP function.

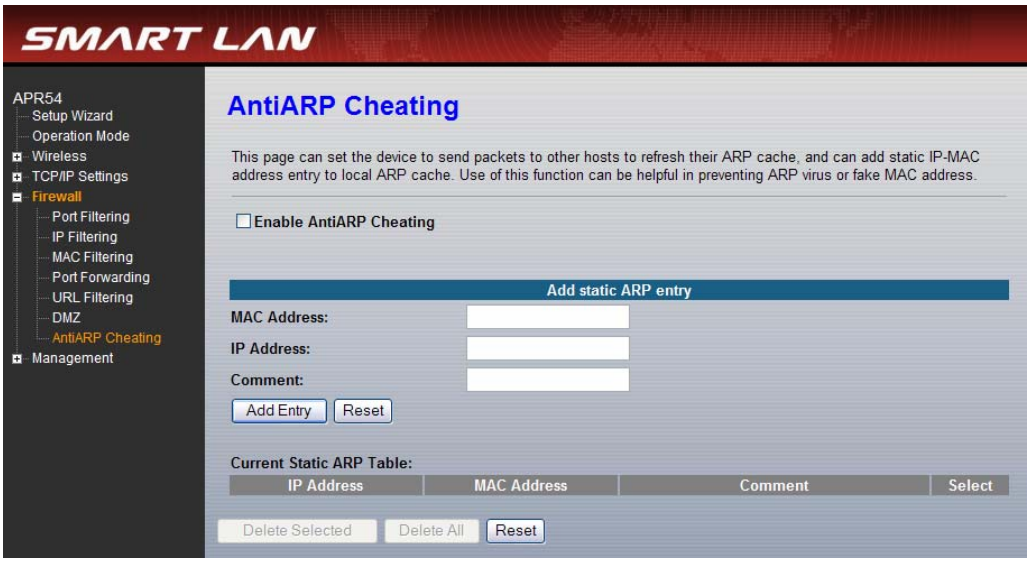
**DMZ Enable:** Select it, DMZ can be edit..

**DMZ Host IP Address:**input IP Address.for example 192.168.1.34.

Click **apply changes**,complete set DMZ.



### 4.4.7 AntiARP Cheating

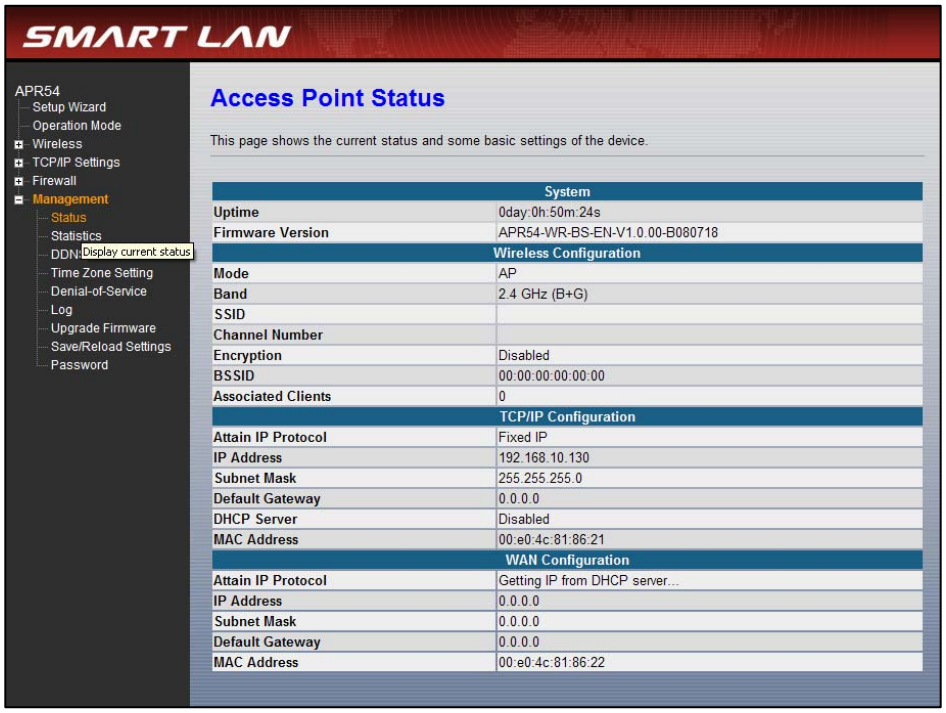



This page can set the device to send packets to other hosts to refresh their ARP cache, and can add static IP-MAC address entry to local ARP cache. Use of this function can be helpful in preventing ARP virus or fake MAC address

## 4.5 Management

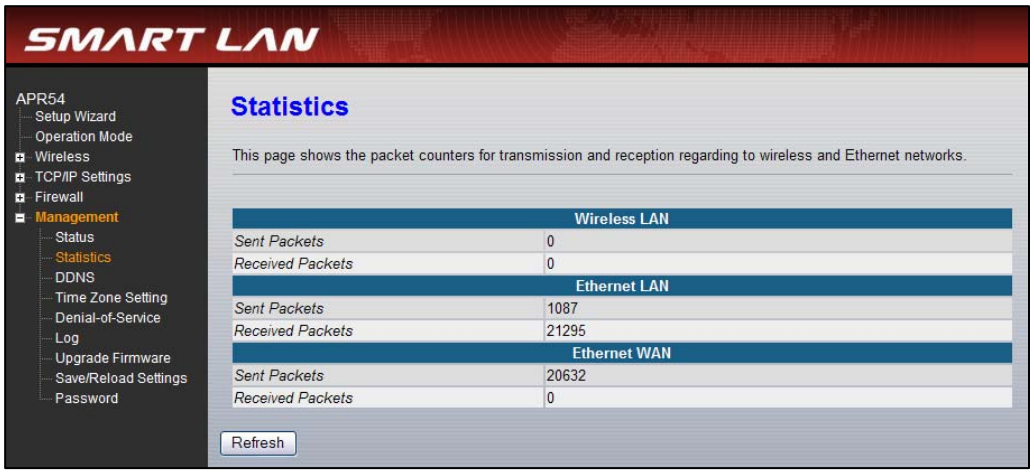
### 4.5.1 Status

This page shows the current status and some basic settings of the device. you can check system Information, LAN Interface Information, WAN Interface Information.

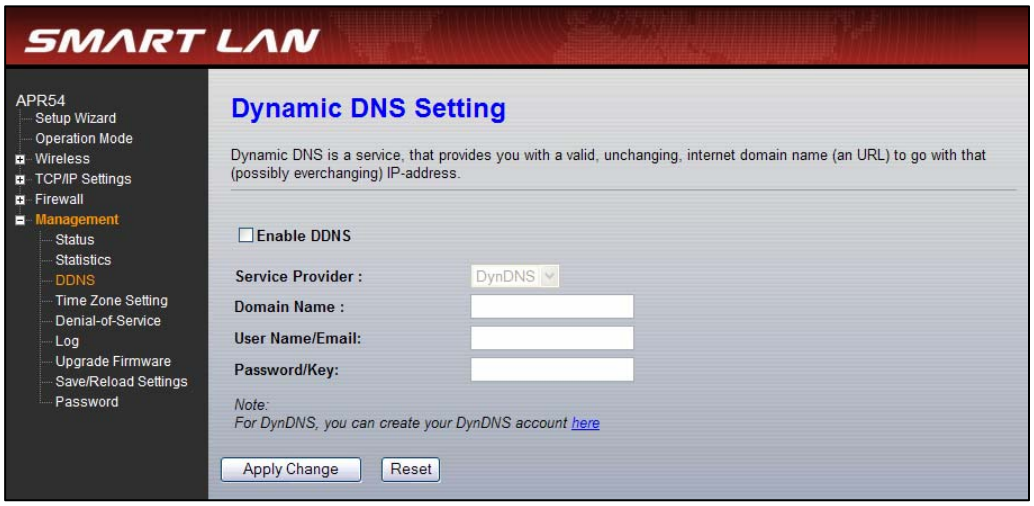


### 4.5.2 Statistics

This page shows the packet counters for transmission and reception regarding to wireless and Ethernet networks.




### 4.5.3 Dynamic DNS Setting




Dynamic DNS is a service, that provides you with a valid, unchanging, internet domain name (an URL) to go with that (possibly everchanging) IP-address. DDNS lets you assign a fixed host and domain name to a dynamic Internet IP Address. It is useful when you are hosting your own website, FTP server, or other server behind the router. Before using this feature, you need to sign up for DDNS service providers such as www.oray.net or www.comexe.cn. The Dynamic DNS client service provider will give you a password or key.

To set up for DDNS, follow these instructions:

1.Type your **dervice provider.**

2.Type the **User Name** for your DDNS account.

3.Type the **Password** for your DDNS account.

4.**Domain Name -** the domain names are displayed here. Click **Apply Changes** to logout the DDNS service.

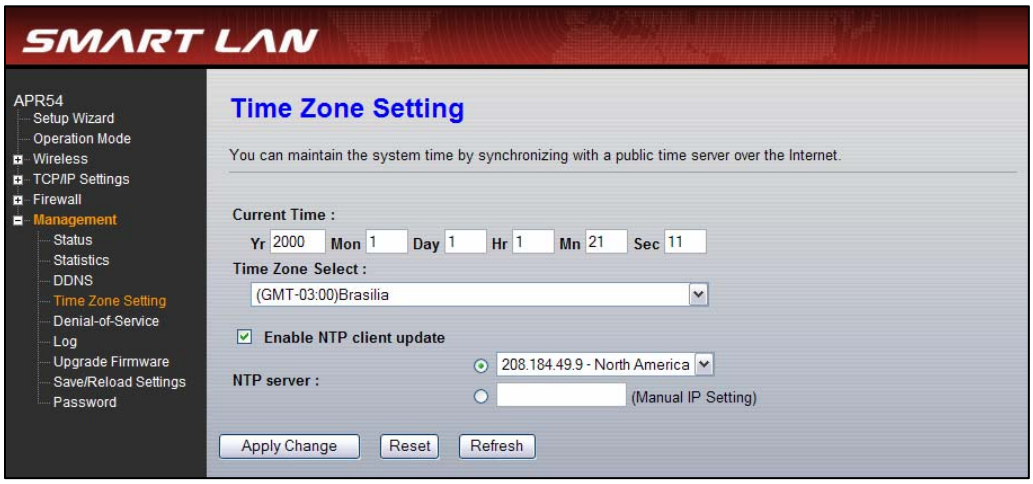
### 4.5.5 Time Zone Setting

You can maintain the system time by synchronizing with a public time server over the Internet.

**Current time:** type the date and time.

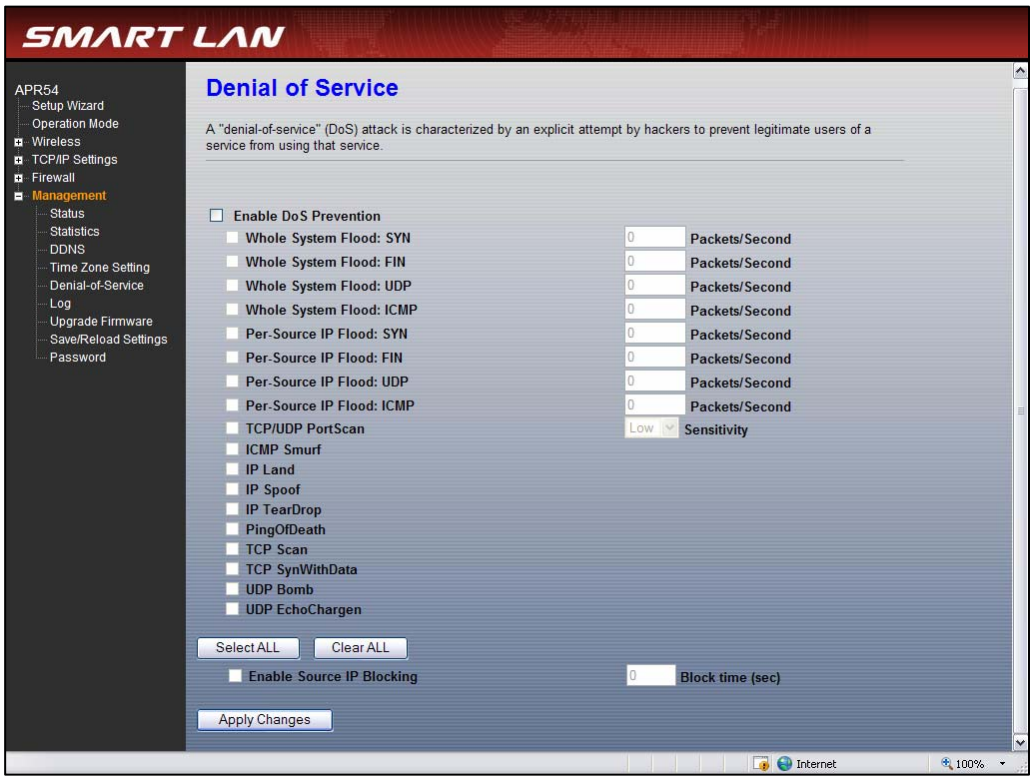
**Time Zone Select:** Select your local time zone from this pull down list.
**Enable NTP client update:**select it, you can get the time from **NTP.**
**NTP server :**select a server from list.

Click the Apply changes get the time from Internet if you have connected toInternet.



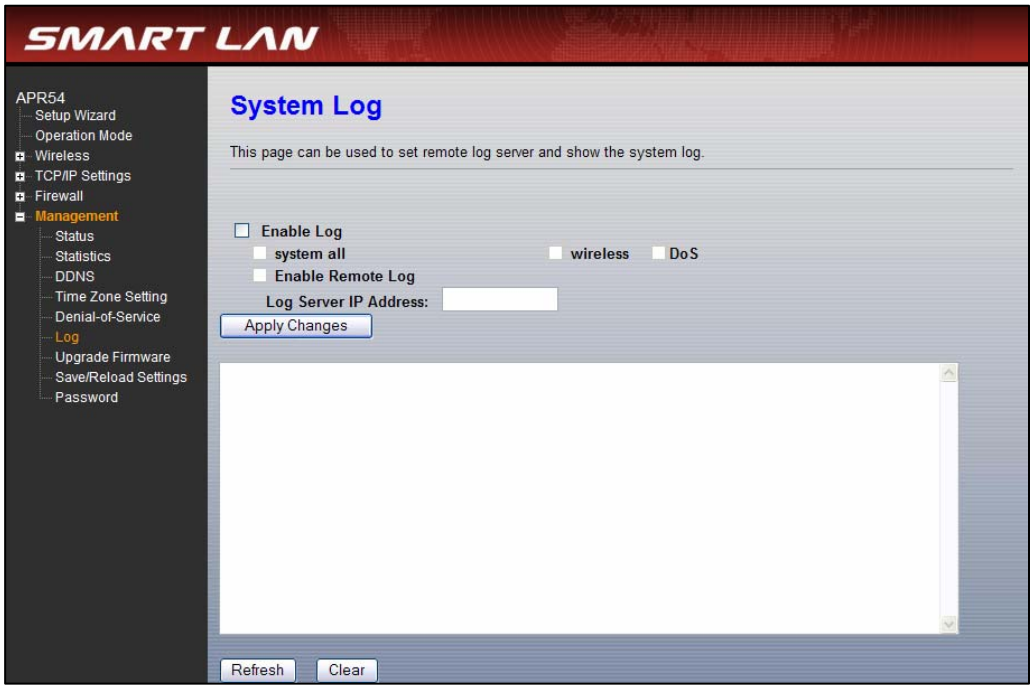

### 4.5. 6 Denial of Service

A "denial-of-service" (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.
**Enable DOS Prevention:**select it, you can modify DOS Prevention.
**Enable Source IP Blocking:** you can input source IP Blocking time
Click apply changes,DOS take effect.



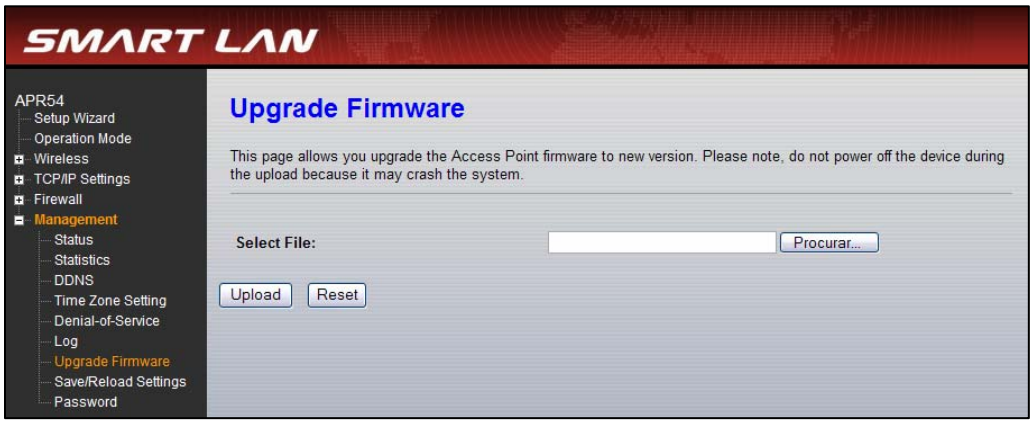

### 4.5.7 Log

This page can be used to set remote log server and show the system log.



### 4.5.8 Upgrade Firmware

This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system




### 4.5.9 Save/Reload settings

This page allows you save current settings to a file or reload the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.

## 4.6 Password setup

This page is used to set the account to access the web server of Access Point. Empty user name and password will disable the

# Appendix 1: FAQ

***1.*** **How do I configure the router to access Internet by ADSL users?**

(1) First, configure the ADSL modem configured in RFC1483 bridge model.

(2) Connect the Ethernet cable from your ADSL modem to the WAN port on the router. The telephone cord plugs into the Line port of the ADSL modem.

(3) Login to the router, click the “TCP/IP settings” menu on the left of your browser, and click "WAN Interface" submenu. On the WAN page, select “PPPoE” for WAN Connection Type. Type user name in the “User Name” field and password in the “Password” field, finish by clicking “Connect”.

(4) If your ADSL lease is in “pay-according-time” mode, select “Connect on Demand” or “Manual” for Internet connection mode. Type an appropriate number for Time to avoid wasting paid time. Otherwise, you can select “continous” for Internet connection mode.

***2.*** **How do I configure the router to access Internet by Ethernet users?**

(1) Login to the router, click the “TCP/IP Settings” menu on the left of your browser, and click "LAN Interface" submenu. On the WAN page, select “DHCP” for "Client", finish by clicking “apply changes”.

(2) Some ISPs require that you register the MAC Address of your adapter, which is connected to your cable or DSL modem during installation. If your ISP requires MAC register, login to the router and click the "TCP/IP Setting" menu link on the left of your browser, and then click "LAN Interface", if your PC’s MAC address is proper MAC address,type your PC’s MAC address will fill in the "Clone MAC Address" field. Or else,The format for the MAC Address isXX-XX-XX-XX-XX-XX. Then click the "apply changes" button. It will take effect after rebooting.

***3.*** **I want to use Netmeeting, what do I need to do?**

(1) If you start Netmeeting as a sponsor, you don’t need to do anything with the router.

(2) If you start as a responsor, you need configure Virtual Server or DMZ Host.

(3) How to configure Virtual Server: Login to the router, click the “Forwarding” menu on the left of your browser, and click " port foward" submenu. On the "port forward " page, enter “1720” into the blank below the “Service Port”, and your IP address below the IP Address, assuming 192.168.1.25469 for an example, remember to “supply changes”.

(4) How to enable DMZ Host: Login to the router, click the “firewall settings” menu on the left of your browser, and click " DMZ" submenu. On the "DMZ" page, click “Enable DMZ” radio and type your IP address into the “DMZ Host IP Address” field, using 192.168.1.25469 as an example, remember to click the "Apply changes” button.

***4.*** **The wireless stations cannot connect to the router.**

(1) Make sure the "Disable Wireless LAN Interface " is not select.

(2) Make sure that the wireless stations' SSID accord with the router's SSID.

(3) Make sure the wireless stations have right KEY for encryption when the router is encrypted.

(4) If the wireless connection is ready, but you can’t access the router, check the IP Address of your wireless stations.

# Appendix 2: Specifications

| **General** | |
|---|---|
| Standards | IEEE 802.3, 802.3u, 802.11b and 802.11g |
| Protocols | TCP/IP, PPPoE, DHCP, ICMP, NAT, SNTP |
| Ports | One 10/100M Auto-Negotiation WAN RJ45 port, Four 10/100M Auto-Negotiation LAN RJ45 ports supporting Auto MDI/MDIX |
| Cabling Type | 10BASE-T :UTP category 3, 4, 5 cable (maximum 100m)<br>EIA/TIA-568 100Ω STP (maximum 100m)<br>100BASE-TX:UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) |
| Radio Data Rae | 54/48/36/24/18/12/9/6/11/5.5/3/2/1Mbps |

| | |
|---|---|
| Power Supply | 9V~ 800mA |
| LEDs | Power, M1, WLAN, 1,2,3,4 |

| **Environmental and Physical** | |
|---|---|
| Operating Temp. | 0□~40□ (32□~104□) |
| Operating Humidity | 10% - 95% RH, Non-condensing |
| Dimensions (W×D×H) | 4.7×1.2 in. (201×120×31.10 mm) (without antenna) |

# Appendix 3: Glossary

**802.11b -** The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread- spectrum (DSSS) technolog and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.

**802.11g -** specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.

**DDNS** (Dynamic Domain Name System) - The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.

**DHCP.** (Dynamic Host Configuration Protocol) **-** A protocol that automatically configure the TCP/IP parameters for the all the PCs that are connected to a DHCP server.

**DMZ.**(**Dem**ilitarized **Z**one) **-** A Demilitarized Zone allows one local host to be exposed tothe Internet for a special-purpose service such anternet gaming or videoconferencing.

**DNS.**(Domain Name Server) **-** An Internet Service that translates the names of websites into IP addresses.

**Domain Name -** A descriptive name for an address or group of addresses on the Internet.

**DoS**(Denial of Service) **-** A hacker attack designed to prevent your computer or network from operating or communicating.

**DSL**(Digital Subscriber Line) **-** A technology that allows data to be sent or received over existing traditional phone lines.

**ISP**(Internet Service Provider) **-** A company that provides access to the Internet

**MTU** (Maximum Transmission Unit) **-** The size in bytes of the largest packet that can be transmitted.

**NAT**(Network Address Translation) **-** NAT technology translates IP addresses of a local area network to a different IP address for the Internet.

**PPPoE** (Point to Point Protocol over Ethernet) **-** PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.

**SSID -** A **S**ervice **S**et **Id**entification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.

**WEP** (Wired Equivalent Privacy) **-** A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.

**Wi-Fi -** A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.

**WLAN** (Wireless Local Area Network) - A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.

SMART LAN

www.smartlan.us